

# Montana DEQ Forest Fire Smoke Advisory

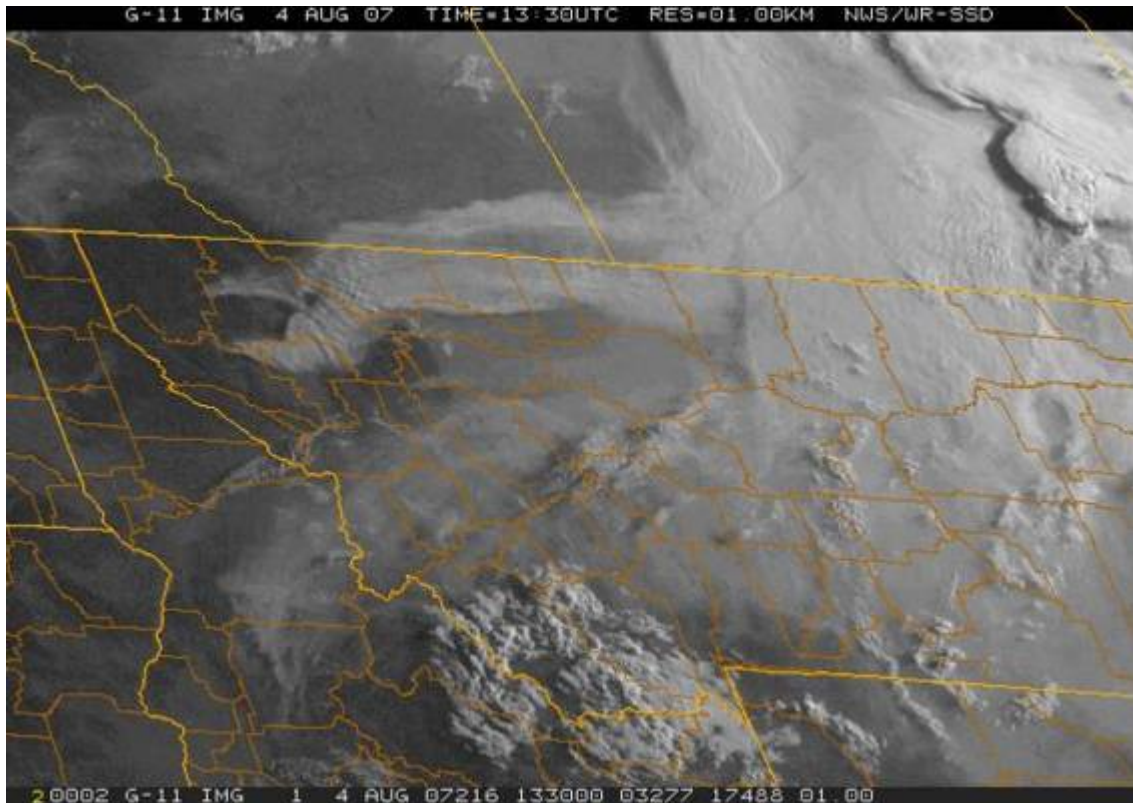
August 04 2007

10:00 AM Saturday

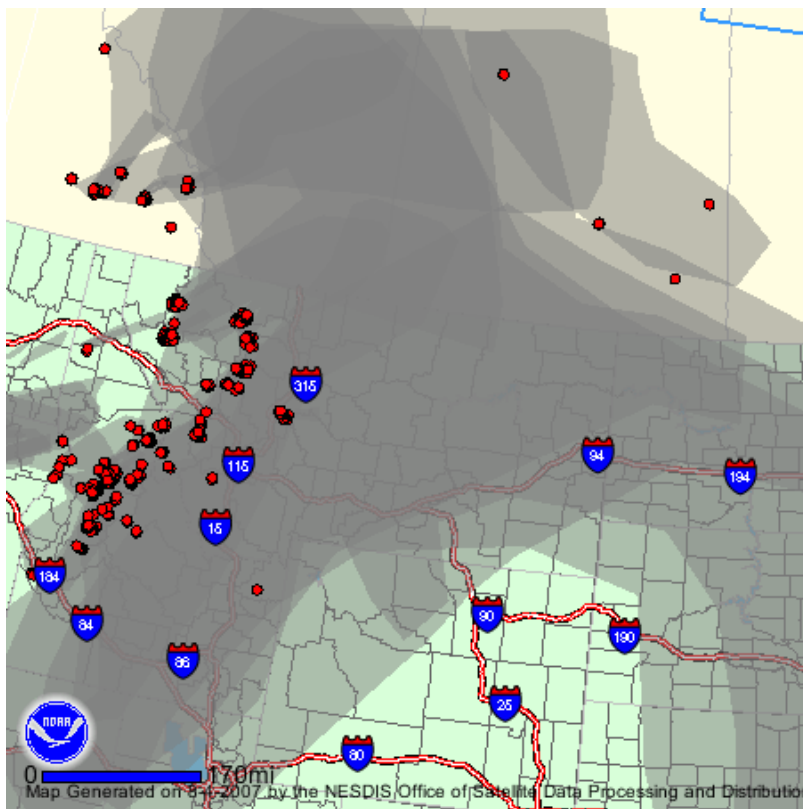
## Current Situation

Smoke has temporarily lifted out of some of the western Montana valleys that were being impacted so heavily by smoke yesterday. Whitefish and Kalispell have improved to [UNHEALTHY FOR SENSITIVE](#) at this time as the smoke is trapped aloft in a stable layer about 2000-3000 feet overhead. Missoula, Polson, and Ronan have dropped all the way down to MODERATE this morning. Smoke levels in Hamilton have been steadily rising, they are at [UNHEALTHY FOR SENSITIVE](#) now and are expected to see [UNHEALTHY](#) later today. Butte and Great Falls are also both at [UNHEALTHY FOR SENSITIVE](#) this morning. Havre, Choteau, and Lewistown have been getting intermittent smoke impacts and are at [MODERATE](#) today. There is an immense plume of smoke spreading across the northern tier of the state and moving up into Canada clearly visible on this morning's satellite photo. Also note the compression waves imbedded in the plume east of the Rocky Mountains as strong winds aloft bounce off the high terrain. This is bringing the smoke down to the surface faster in the Hi-Line and Front Range areas. As soon as the ground heats up, the mixing heights will rise to the smoke layer and smoke impacts at the surface should spike dramatically. See the forecast below. Residents near active fires or experiencing noticeable smoke levels should use the [VISIBILITY GUIDELINES](#) to determine smoke levels in their area and guide their activity decisions.

Morning satellite photo centered on Great Falls:



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind (the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage)



Red indicates hot spot detected. Grey represents smoke seen by satellite.  
Fire size is exaggerated for visibility at this scale.

To identify individual fires on graphic above go here:

[http://activefiremaps.fs.fed.us/lg\\_fire2.php](http://activefiremaps.fs.fed.us/lg_fire2.php)

This satellite photo from last evening at 8 PM shows the awesome plumes of smoke boiling up out of the active fires in Idaho and Montana last night. This is what produced the huge mass of smoke aloft over northern and eastern Montana seen on this morning's photo.



This picture from the Lake McDonald webcam in Glacier National Park clearly shows the bands of smoke aloft impinging on the mountain peaks. Surface conditions are good at this time.



Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

## Updated 10 AM August 04, 2007

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

<a href="#">HAZARDOUS</a>	
<a href="#">VERY UNHEALTHY</a>	
<a href="#">UNHEALTHY</a>	
<a href="#">UNHEALTHY FOR SENSITIVE GROUPS</a>	Whitefish T24 Kalispell T24 Hamilton T24 Butte T24 Great Falls Vis(6)
<a href="#">MODERATE</a>	Polson T8 Ronan T8 Missoula T24 Choteau T8 Havre Vis(5) Lewistown Vis(3)

T1(x)

One-hour TEOM or BAM value (number of values)

T8(x)

Eight-hour average TEOM or BAM value(number of values)

T24	24 hour average TEOM or BAM value
Vis(x)	Visibility value(number of hours)
Vis(am/pm)	Visibility value from twice/day reporting stations
(est)	estimate

Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local [visibility guidelines](#) to evaluate possible health risks and make informed activity decisions.

## Forecast

Smoke levels will rise temporarily in many areas today as the smoke produced yesterday mixes down to the surface. With a good west to southwest flow aloft, the smoke over the state this morning will be moving into Canada and North Dakota leaving only today's smoke to deal with by later this afternoon. There are Red Flag warnings out for wind and low humidities and most of the fires in the state should see significant growth again today. Smoke impacts east of the active fires could be severe this afternoon. Hamilton, Whitefish, Kalispell, Polson, Ronan, Seeley Lake, and Butte will all likely end up in [UNHEALTHY](#) by the end of the day. Residents need to pay close attention to conditions in their area and use the [visibility guidelines](#) to guide their activity decisions as the situation changes.

[John Coefield](#)

Meteorologist

Montana Department of Environmental Quality